

Return-To-Work (RTW) Breakdown

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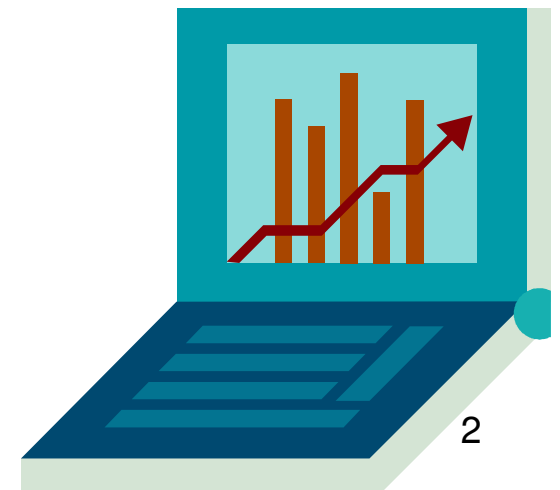
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Workers' Compensation Analyst, ERD

Labor-Management Advisory Council Meeting
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Goals of Research

- Explain RTW by many drivers
- Show differences for people that RTW differently
- Identify RTW areas for “drill down” & look at potential policy change areas
- Let the data do the talkin’!



What We CAN Measure to Explain RTW Duration

- Age
- Tenure
- Gender
- Marital Status
- Dependents
- Employment History
- # of Jobs at Injury
- Employer Size
- Pre-Injury Wage
- Work History
- Previous Injuries
- Industry
- Geographic Factors by County
- Cause of Injury
- Body Part Injured
- Physician Payments
- Hospital Payments
- Other Medical Payments
- Indemnity Benefits
- Lump Sum Settlement
- Vocational Rehab Benefits
- Plan Type
- Attorney Involvement
- Disputes
- Impairment Rating

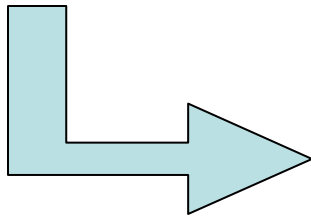
Thank you to DLI's Unemployment Insurance Division for providing wage and employer size data.

Variables we WANT to Measure To Explain RTW Duration

- Education Level
- Non-Economic Outcomes
- Full-time vs Part-time
- Was RTW sustainable?

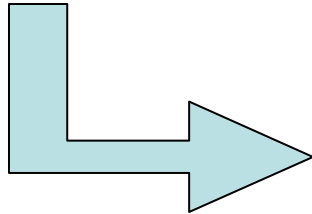
Methods

1. Cluster Analysis



Which RTW durations group naturally?

2. Statistical Regression



How do variables effect RTW duration?

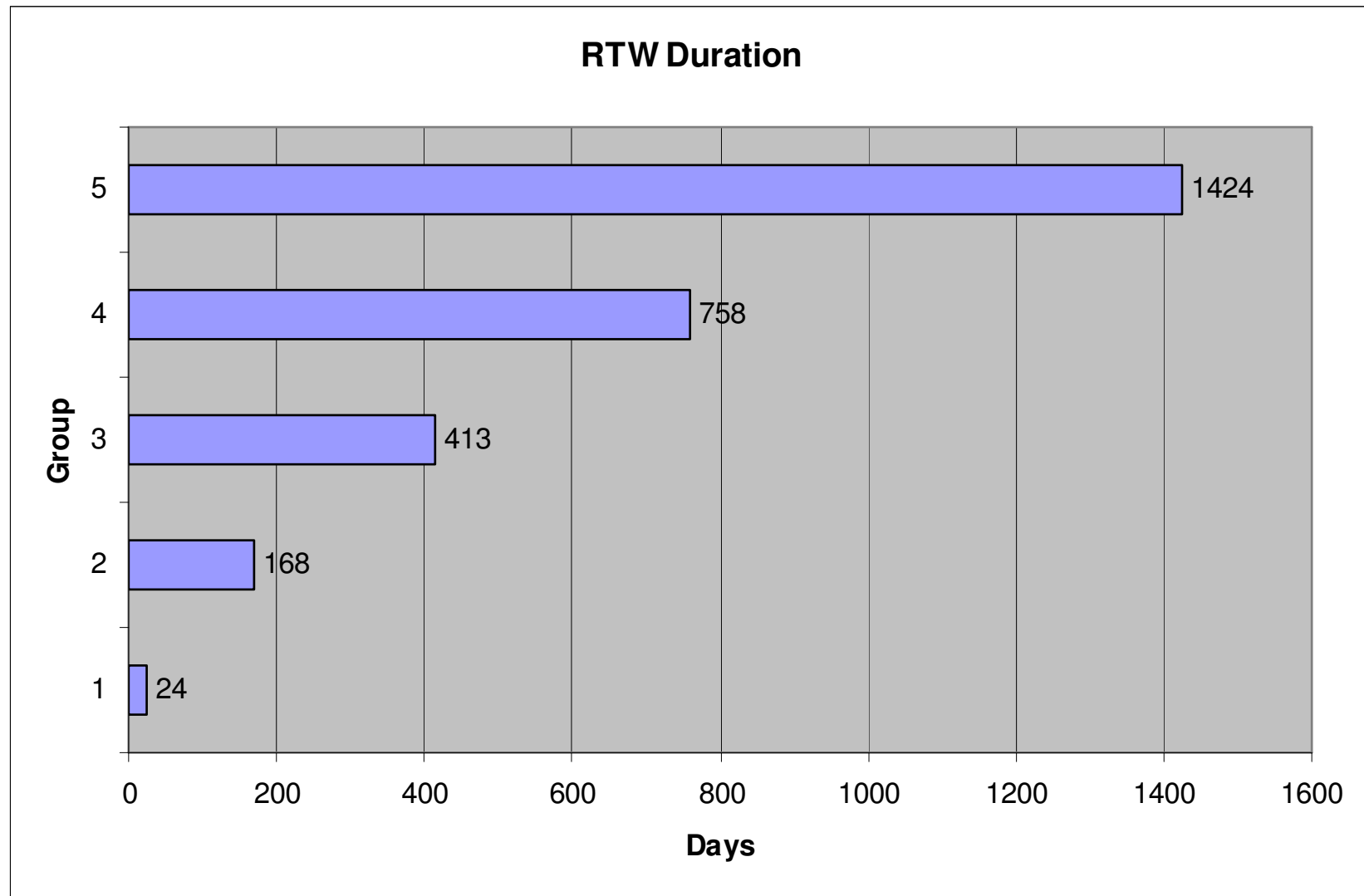
Our Sample

- Dates of injury between October 1, 2001 and December 31, 2002. (due to availability of wage and employment data)
- Approximately 3,000 observations after data was filtered for completeness

Cluster Analysis

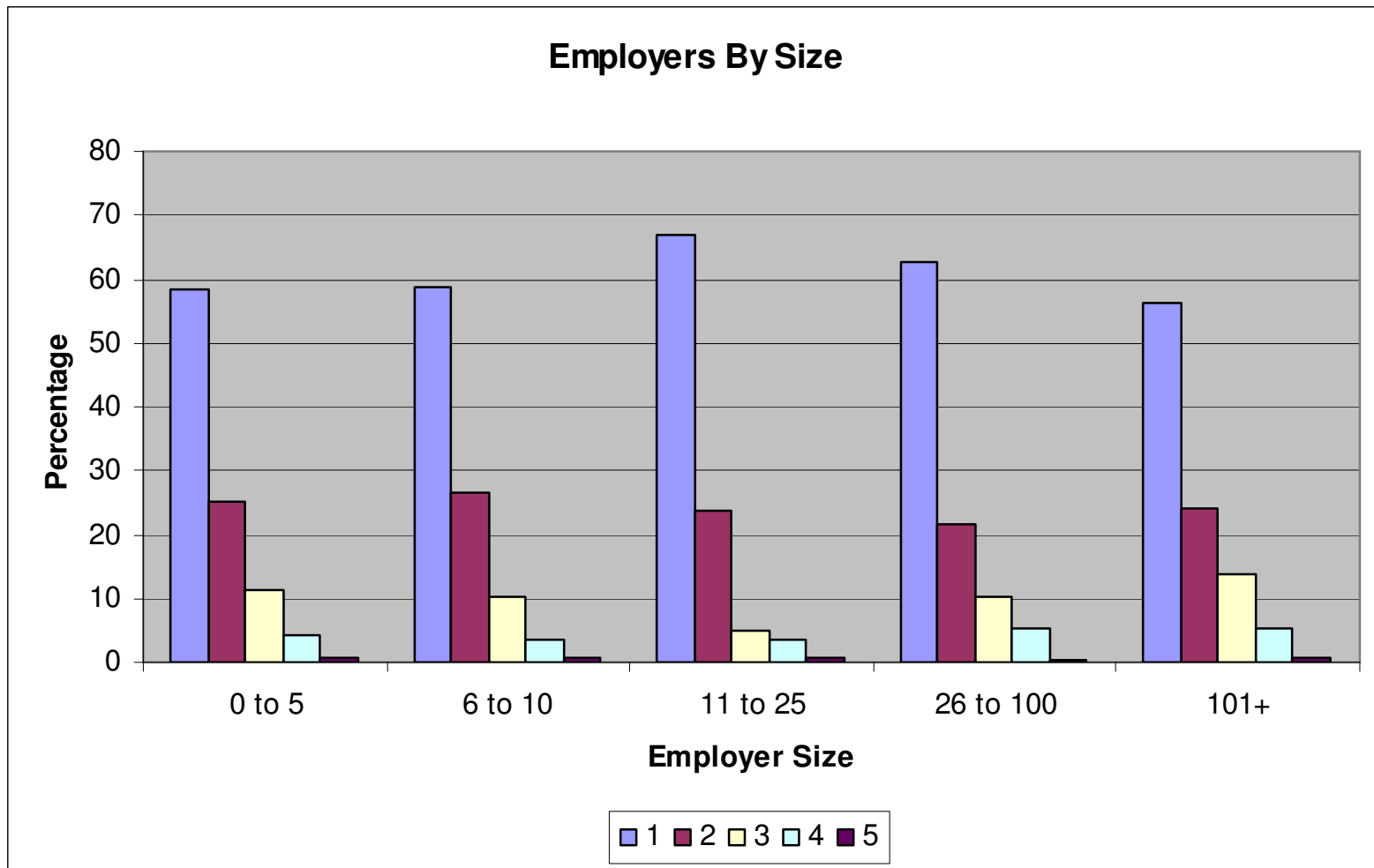
- Used statistical method to break down RTW duration into natural groups
- Examined characteristics of these groups





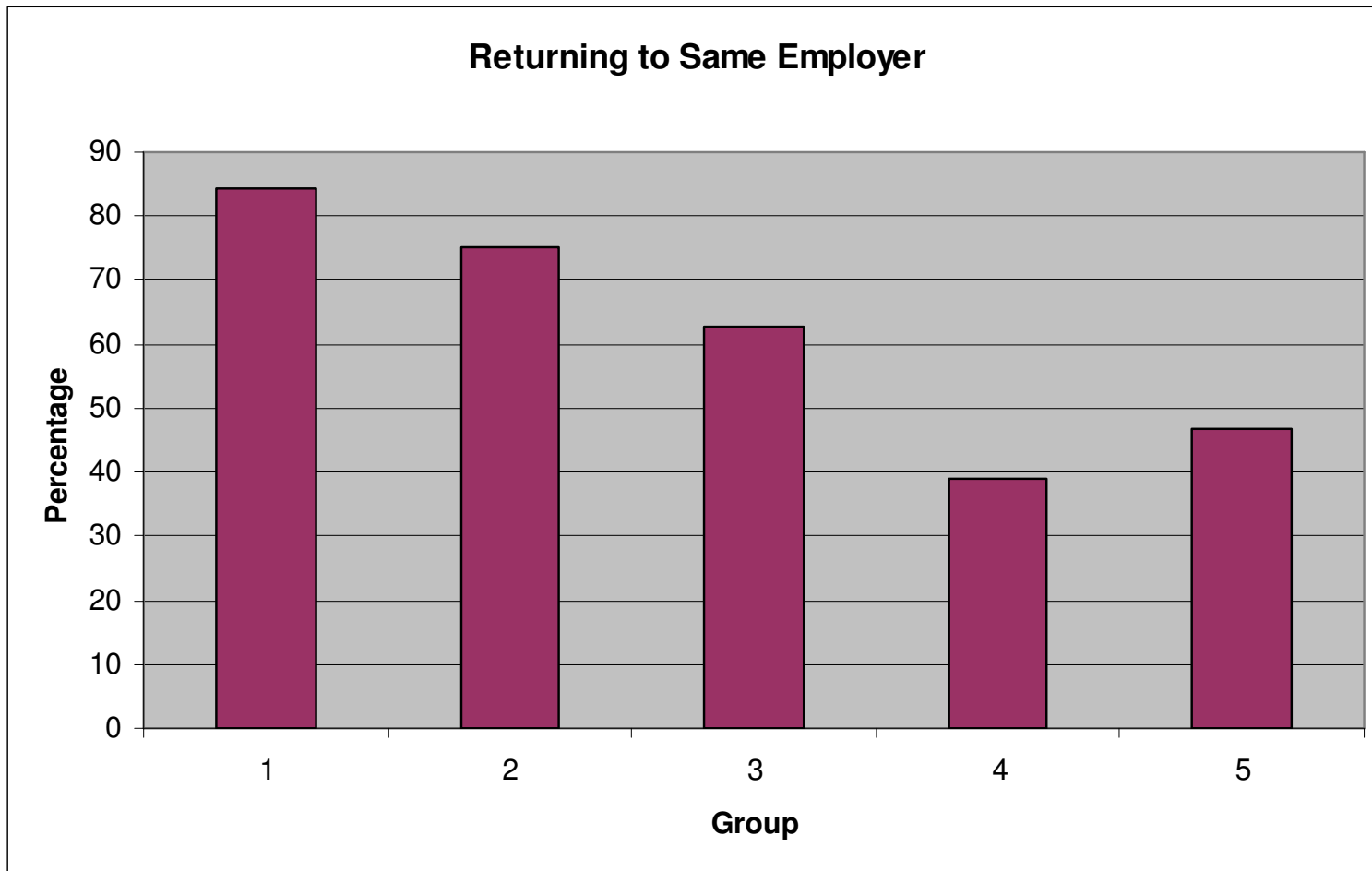
Group 1: 1,803 injuries—Group 2: 687 injuries—Group 3: 333 injuries

Group 4: 138 injuries—Group 5: 19 injuries



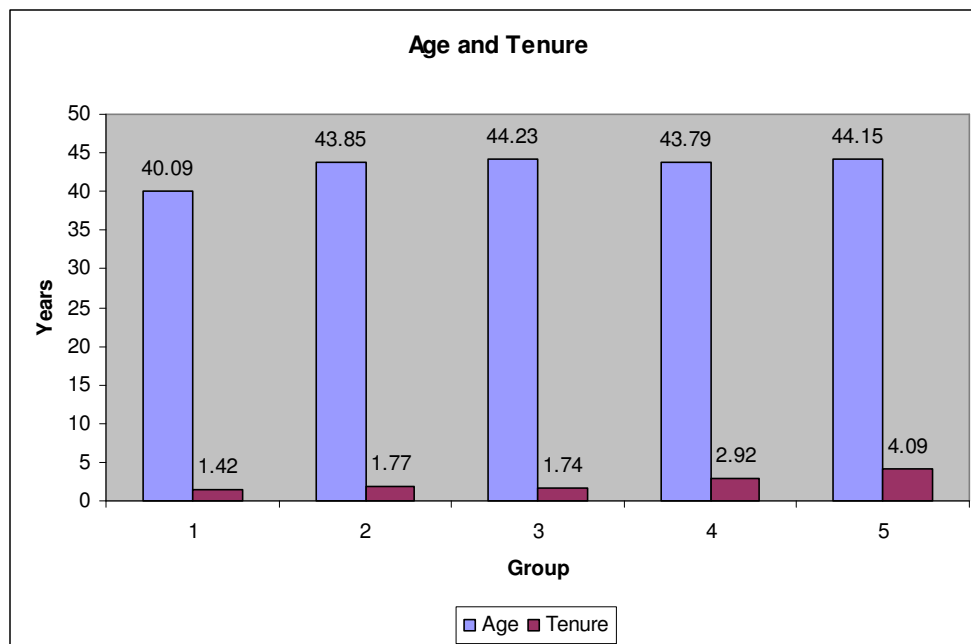
Percentage of workers who fall into each group, by employer size.

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days



Percentage of workers that return to their pre-injury employer, by group

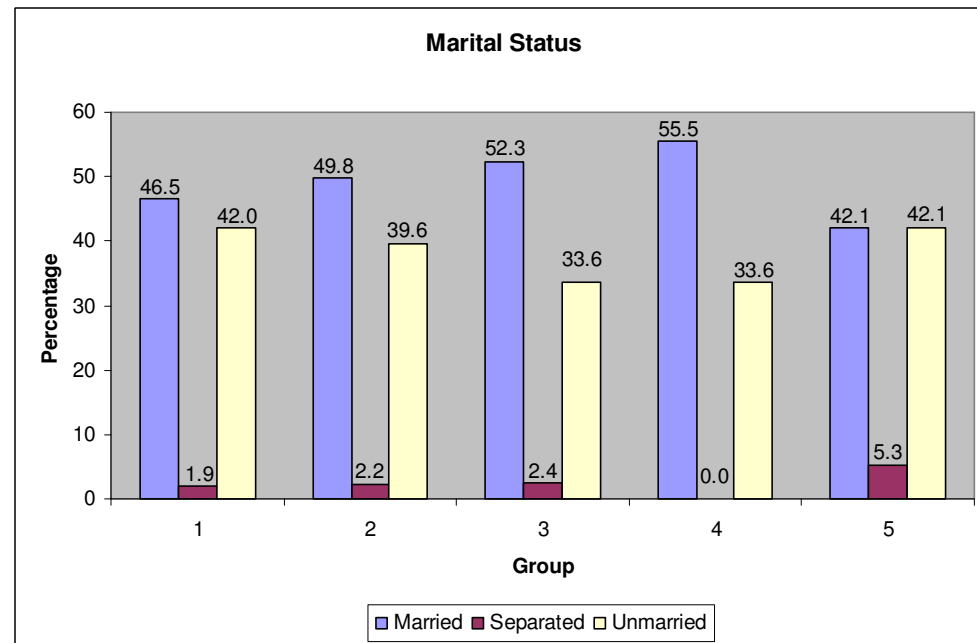
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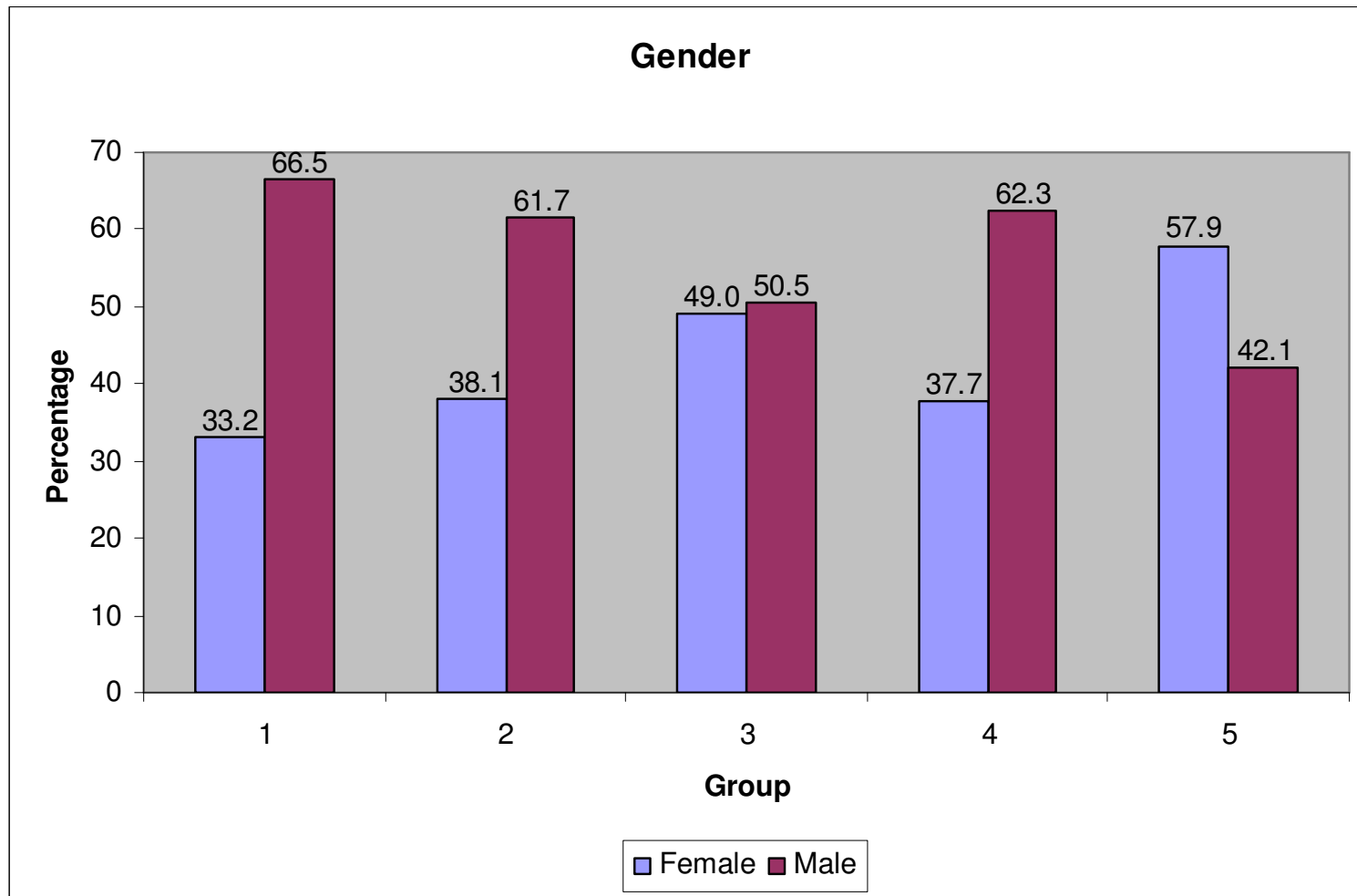


Median age and tenure of workers, by group

Median RTW Duration:
 Group 1=24 days
 Group 2=168 days
 Group 3=413 days
 Group 4=758 days
 Group 5=1,424 days

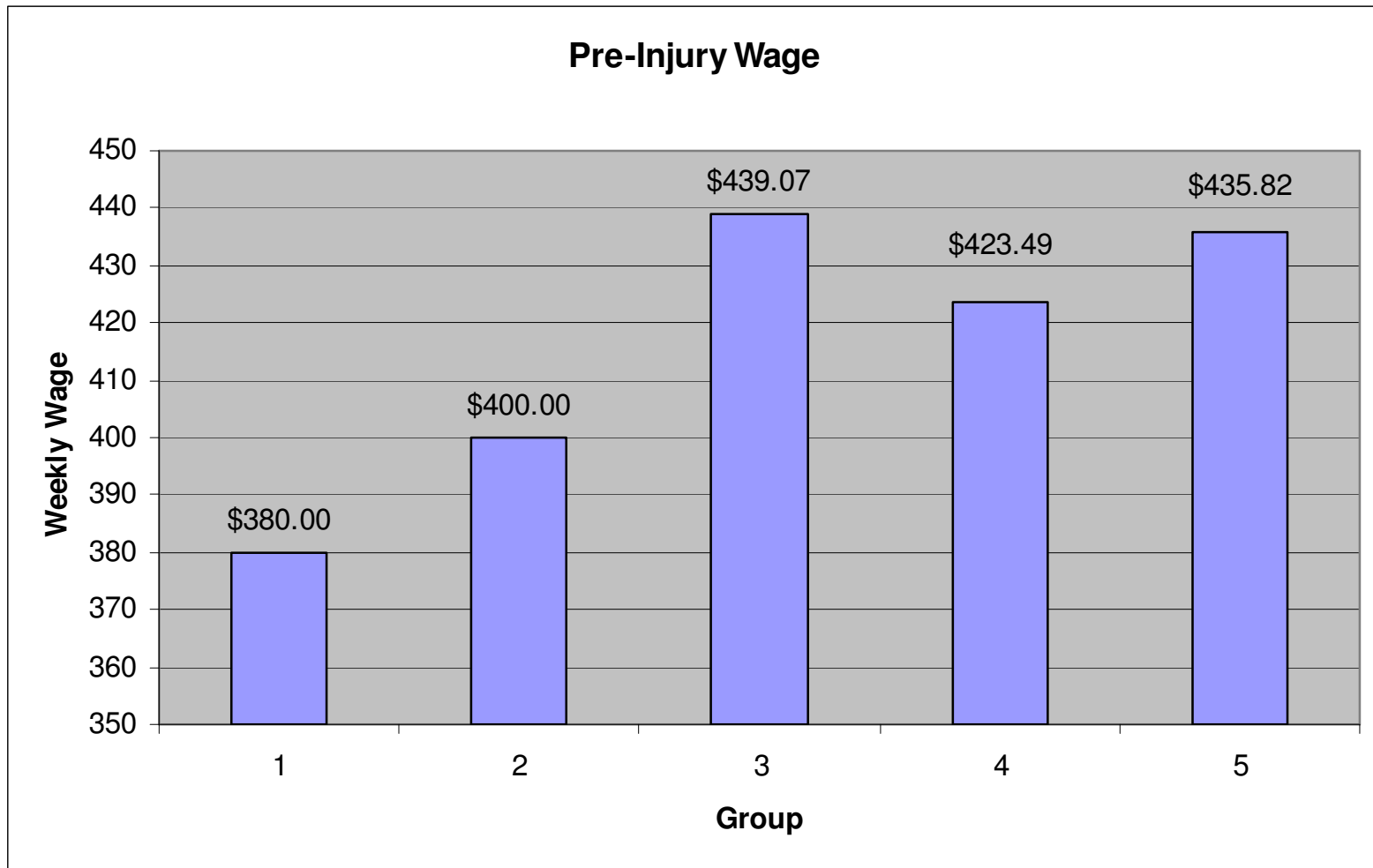
Worker marital status, by group.





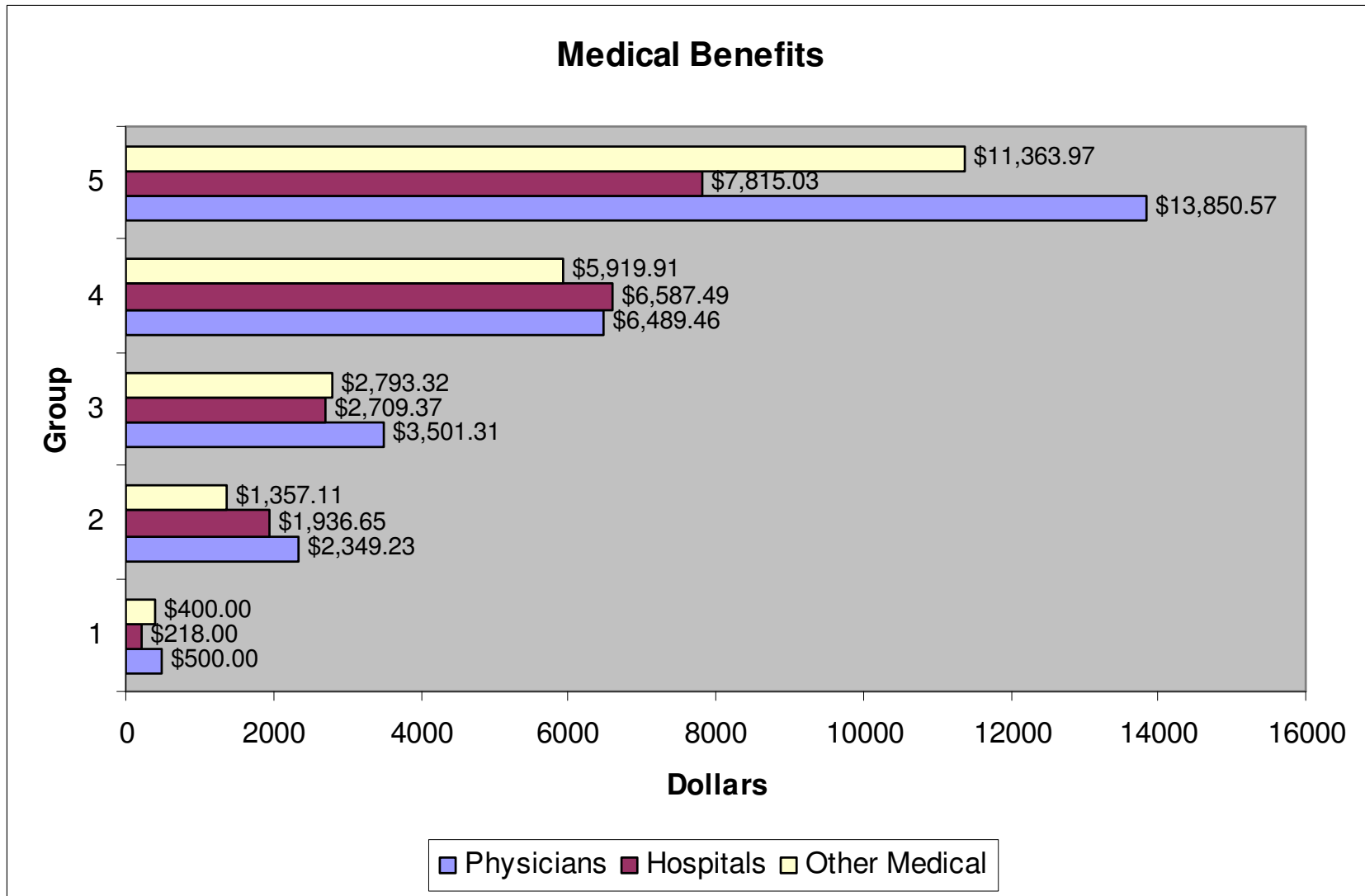
Gender of workers, by group

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days



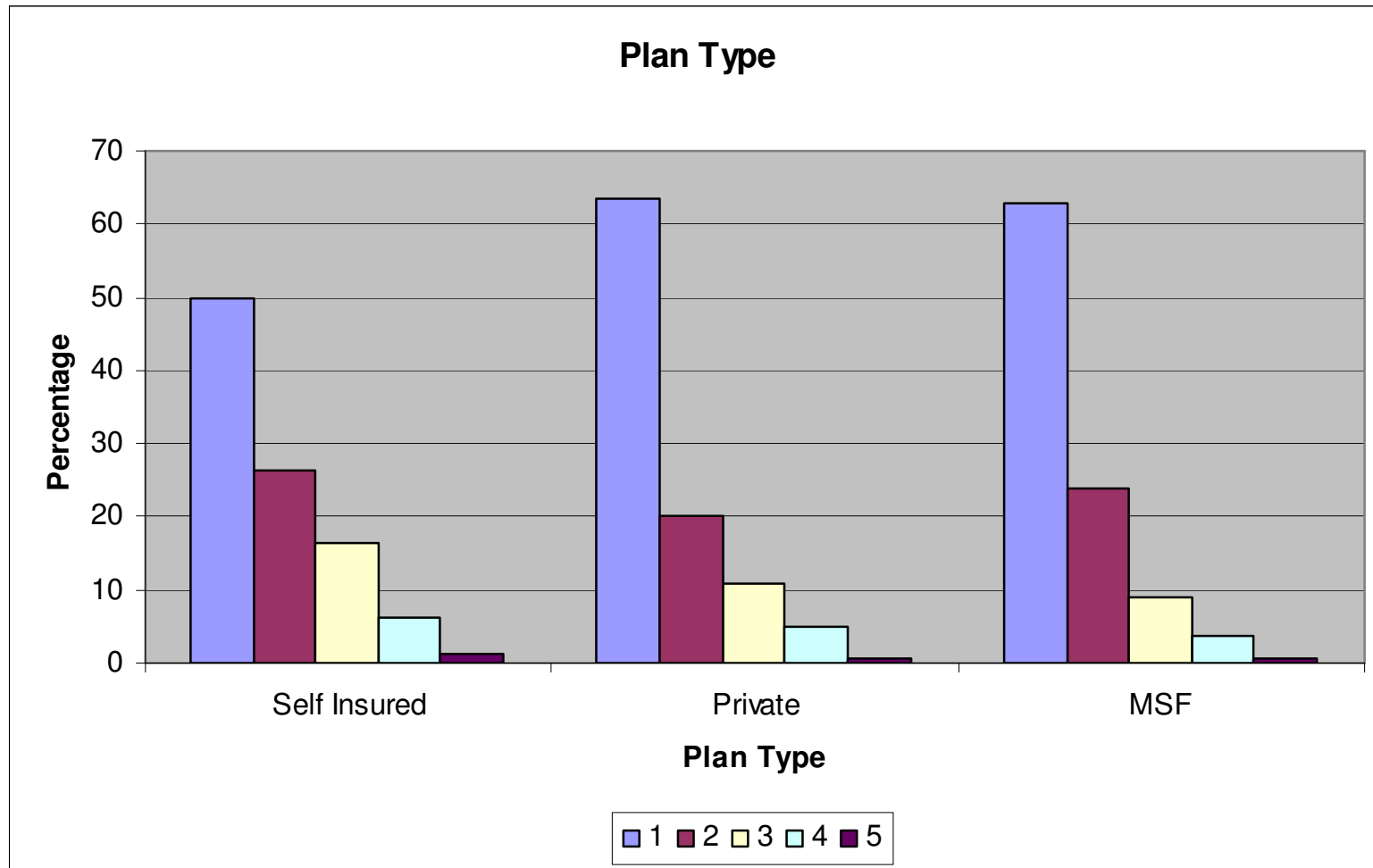
Median weekly wage for workers, by group

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days



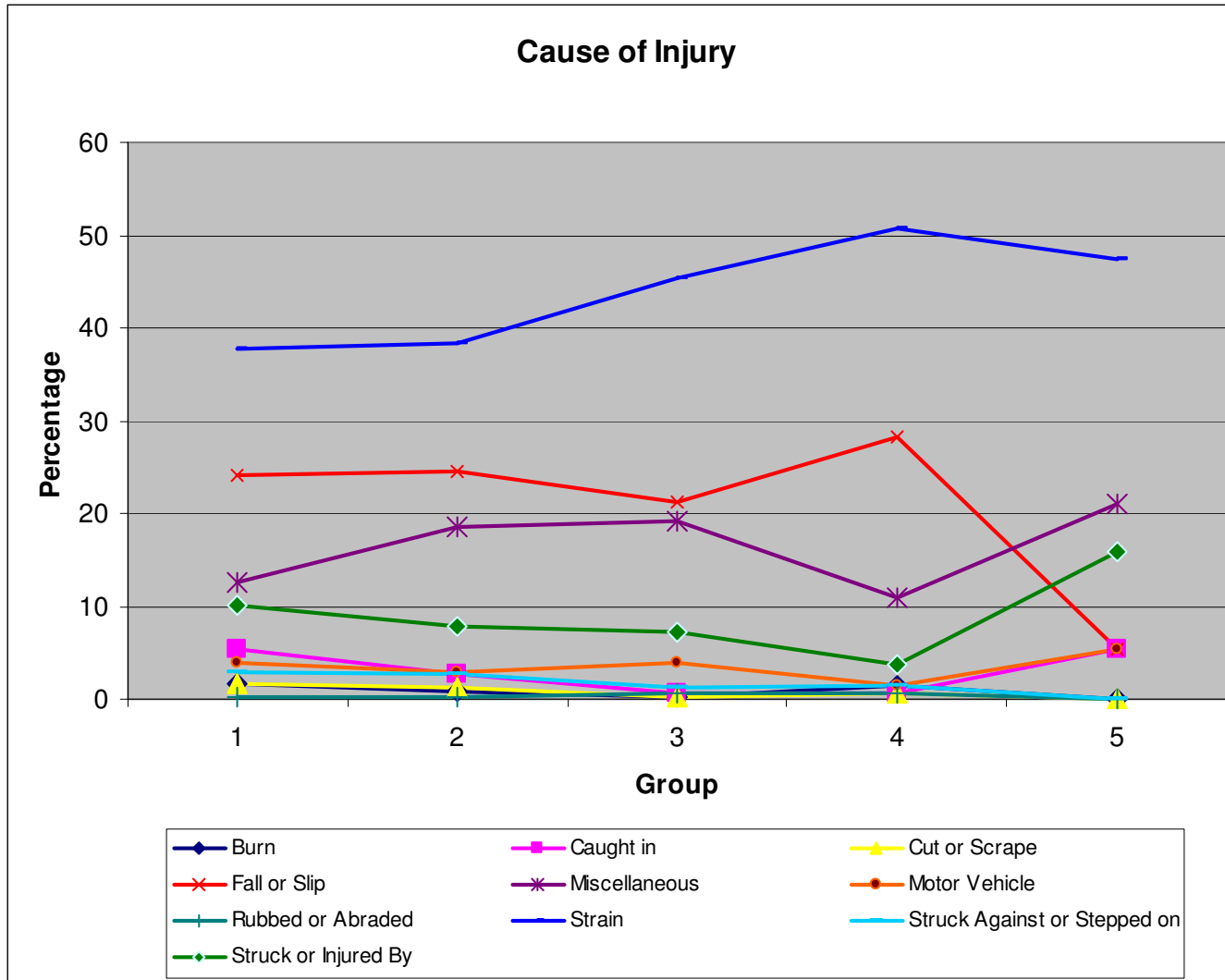
Median total medical benefits per worker, by group

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days



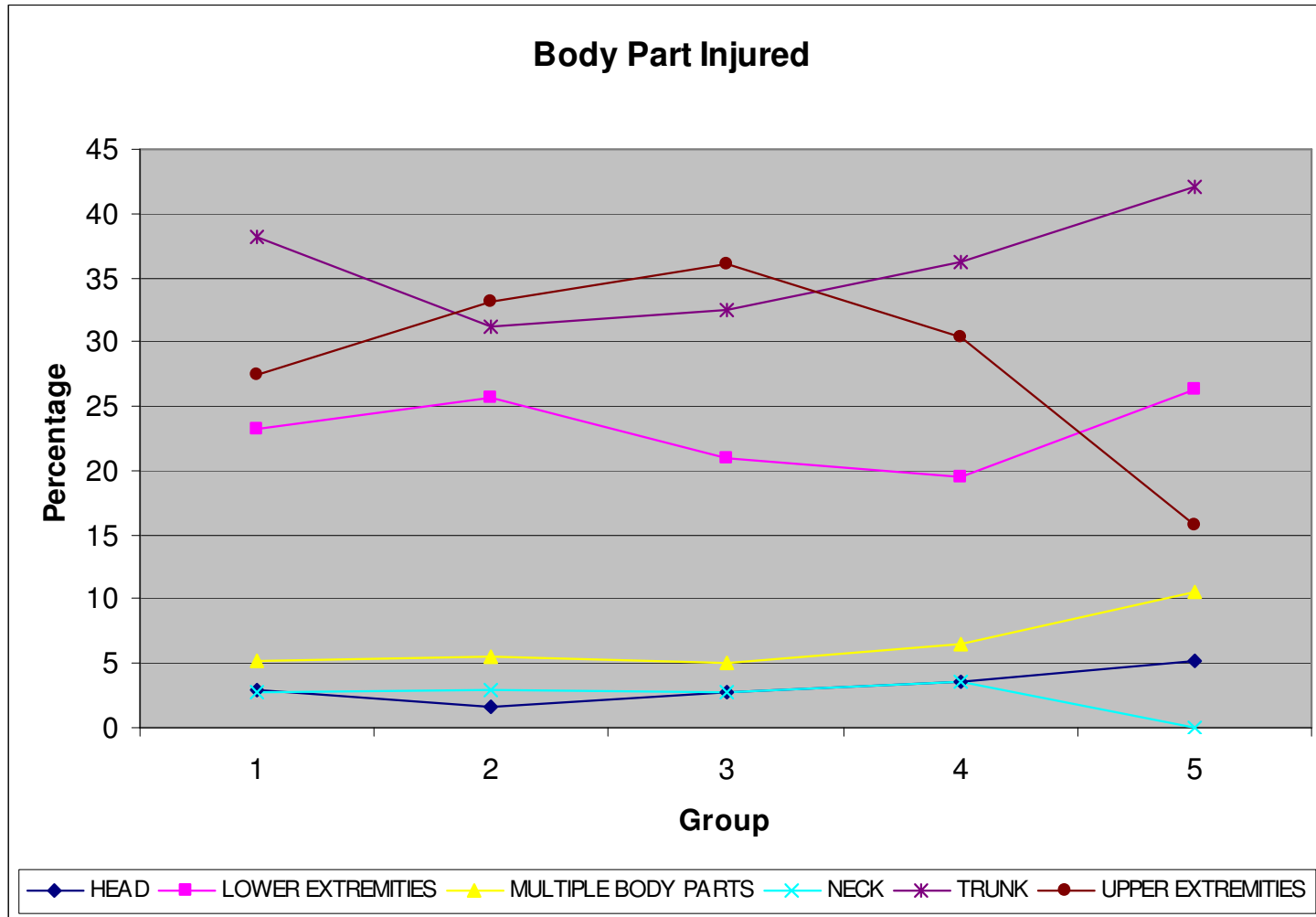
Percentage of workers that fall into each group, by plan type

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days



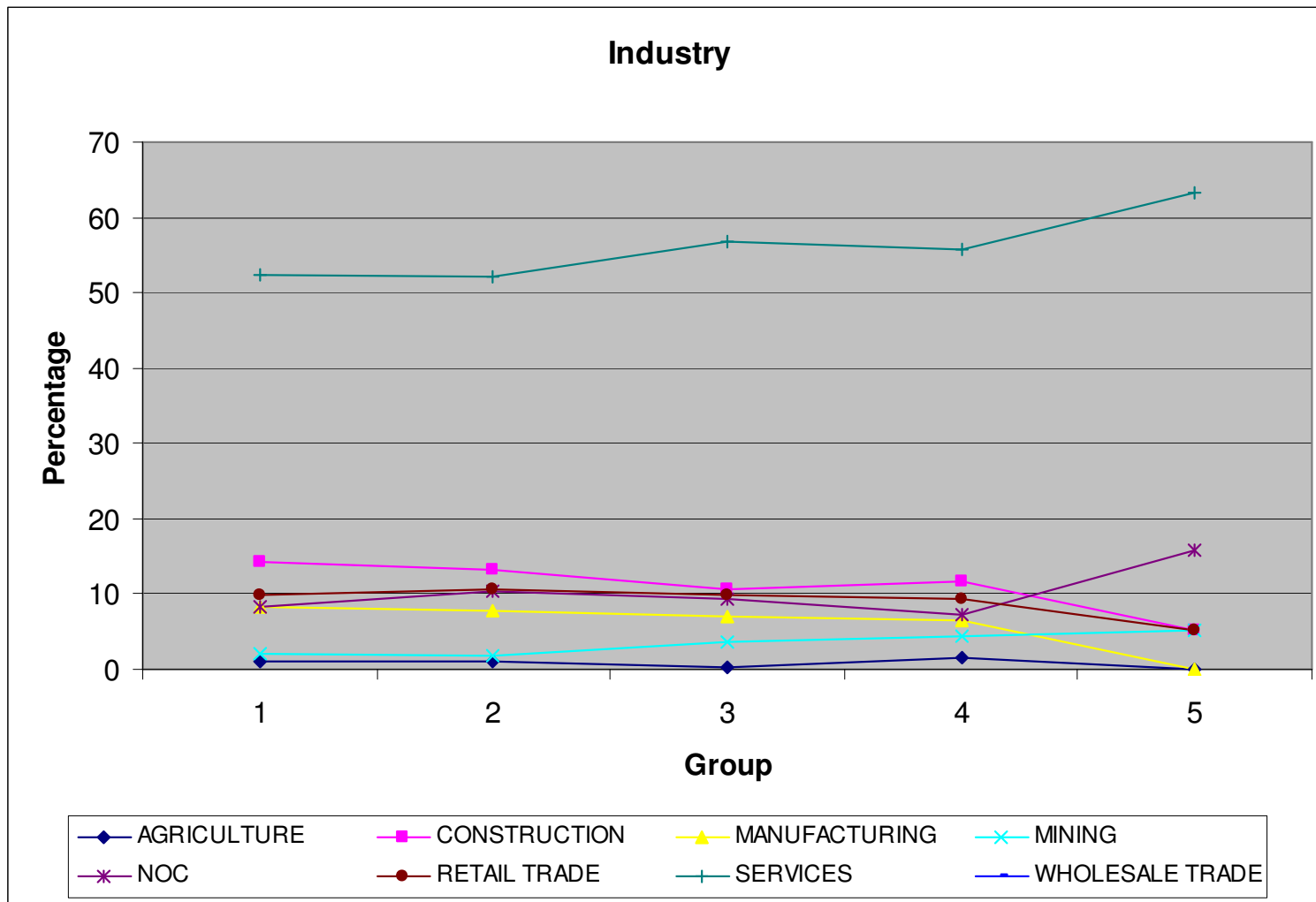
Percentage of workers with cause of injury, by group

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days



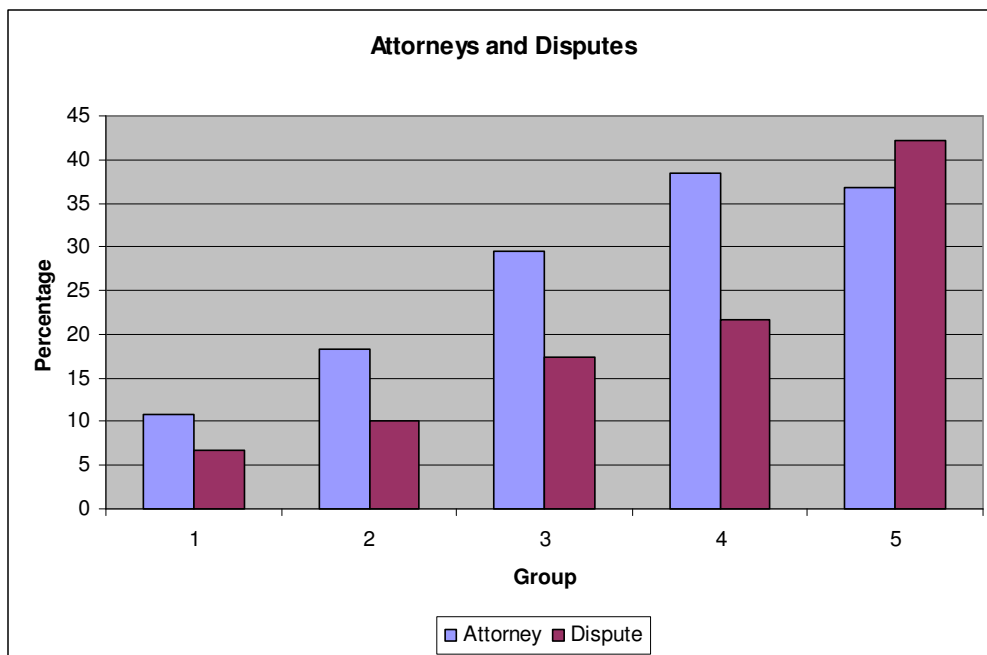
Body part injured by percentage and group

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days



Percentage of workers in each industry, by group

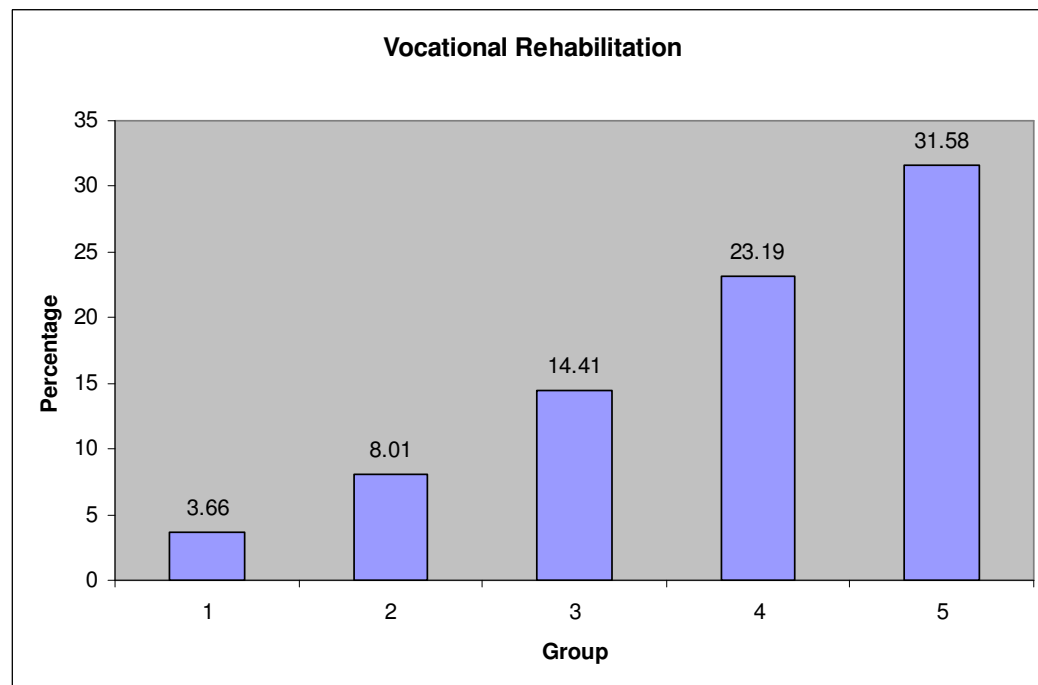
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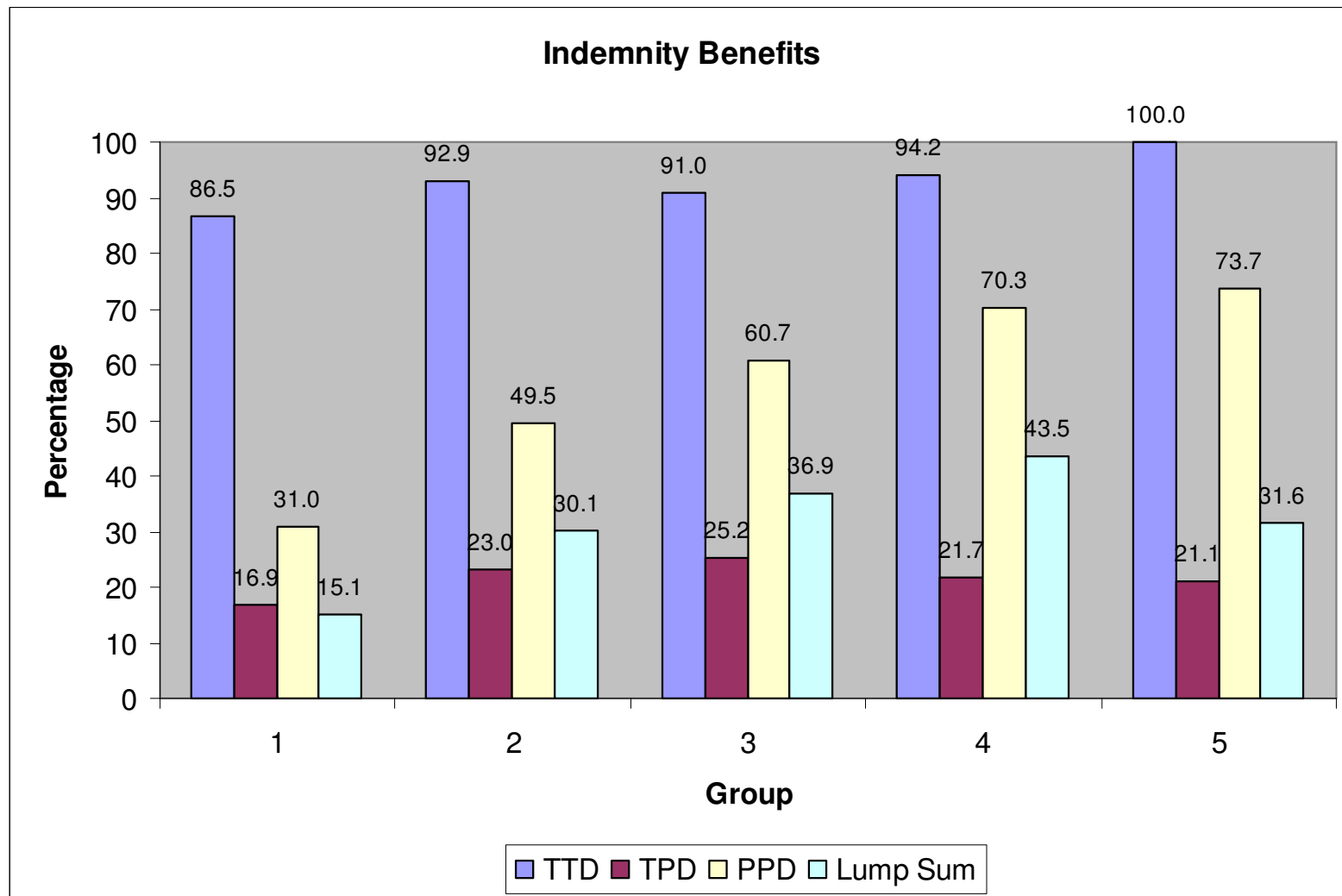


Percentage of workers receiving voc. rehab. services, by group

Percentage of claims with an atty. and/or encountering a dispute

Median RTW Duration:
 Group 1=24 days,
 Group 2=168 days,
 Group 3=413 days,
 Group 4=758 days,
 Group 5=1,424 days





Percentage of people receiving indemnity benefits or settlement, by group

Median RTW Duration: Group 1=24 days, Group 2=168 days, Group 3=413 days, Group 4=758 days, Group 5=1,424 days

Predicting RTW Duration

- Looked at joint effects of variables on RTW duration
- Excluded variables that were “picked up” by another
- Excluded variables that didn’t “add” to the model
- Result: Estimated effects and our confidence in them

Final Model

RTW Duration based on:

- Age
- Employer Size
- Medical Benefits
- Plan Type
- Cause
- Body Part
- Attorney
- Voc. Rehab.
- Indemnity Benefits
- Lump Sum Settlement

The Individual & the Employer

- An increase in age produces a minor increase in RTW duration
- An increase in employer size produces a minor increase in RTW duration
- For both, a movement within cluster

The Injury

- Cause of Injury: the impact of injury cause varies RTW time by up to 40 days
- Body Part: the impact of body part injured varies RTW time by up to 30 days

Stakeholders



- Plan Type:
 - Plan type impacts RTW time by at most 30 days
- Attorney Involvement:
 - Having attorney involvement increases RTW time by 16 days
- Voc. Rehab.:
 - Receiving VR services increases RTW time by 30 days

Indemnity Benefits

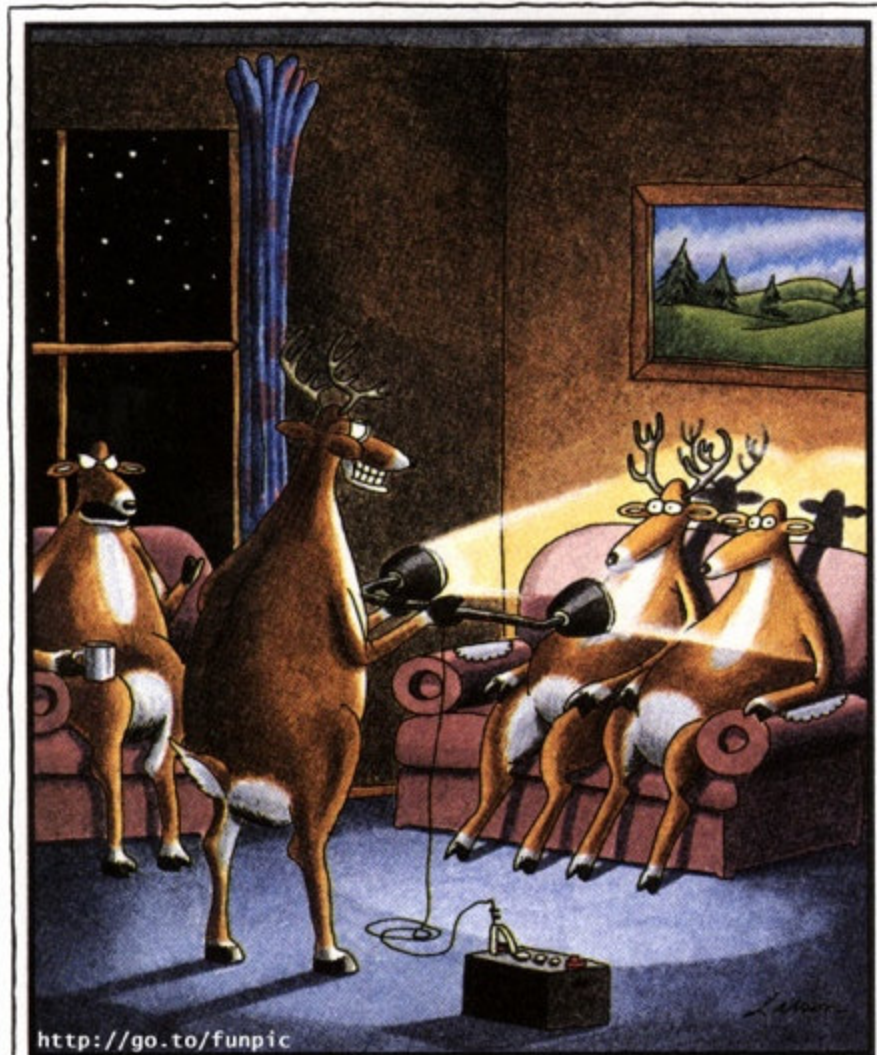
- TTD increases RTW time by 53 days (validates model)
- Others vary RTW time by 10-20 days
- Having Lump Sum increases RTW time by 10 days

Medical Benefits

- RTW time added accelerates as \$ increase
- Movement from \$0 to \$20,000 adds 40 days (\$1,000 = 2 days)
- Movement from \$20,000 to \$40,000 adds 50 days (\$1,000 = 2.5 days)
- Movement from \$40,000 to \$100,000 adds 350 days (\$1,000 = 5.8 days)

To Summarize:

- Individual, injury, and stakeholder characteristics have no major impacts on RTW duration—can move people within groups
- The type of indemnity benefit received does not influence RTW time
- Medical payments (severity or perceived severity) impact RTW time more than other variables in our model



"OK, Frank, that's enough. I'm sure the Jeffersons are quite amazed at your car headlight device."

Questions?